COE 197 ME08: DOCKER

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6. Networking

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker network ls
NETWORK ID      NAME       DRIVER     SCOPE
79dc3ed30547    bridge     bridge     local
27844c2eeba3    host       host       local
defd1b8e8d15    none       null       local
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker network inspect bridge
[
    {
        "Name": "bridge",
        "Id": "79dc3ed30547a8b564dead7d6c02cb88d433734514f2c62f9222d0ddf3cd126e",
        "Created": "2021-06-17T18:15:56.7613518Z",
        "Scope": "local",
        "Driver": "bridge",
        "EnableIPv6": false,
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker run --rm -d --name dummy brogelio/ping
:1.0
f9d5282fedf1c210082910b2fee4686fff3f1924228bc984512a8dac60c33924
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker network inspect bridge
[
    {
        "Name": "bridge",
        "Id": "79dc3ed30547a8b564dead7d6c02cb88d433734514f2c62f9222d0ddf3cd126e",
        "Created": "2021-06-17T18:15:56.7613518Z",
        "Scope": "local",
        "Driver": "bridge",
        "EnableIPv6": false,
        "IPAM": {
            "Driver": "default",
            "Options": null,
            "Config": [
                {
                    "Subnet": "172.17.0.0/16"
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker run --rm -d -e PING_TARGET=172.17.0.2
--name pinger brogelio/ping:1.0
7779f880c5ff91c96e92ca6e5c03f0f7e2e4d0a055157ee78078997c7b3fda2c
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker ps
CONTAINER ID    IMAGE                 COMMAND               CREATED         STATUS         PORTS      NAMES
7779f880c5ff    brogelio/ping:1.0     "sh -c 'ping $PING_T…" 14 seconds ago  Up 11 seconds             pinger
f9d5282fedf1    brogelio/ping:1.0     "sh -c 'ping $PING_T…" 2 minutes ago   Up 2 minutes              dummy
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker logs pinger
PING 172.17.0.2 (172.17.0.2) 56(84) bytes of data.
64 bytes from 172.17.0.2: icmp_seq=1 ttl=64 time=0.121 ms
64 bytes from 172.17.0.2: icmp_seq=2 ttl=64 time=0.071 ms
64 bytes from 172.17.0.2: icmp_seq=3 ttl=64 time=0.071 ms
64 bytes from 172.17.0.2: icmp_seq=4 ttl=64 time=0.261 ms
64 bytes from 172.17.0.2: icmp_seq=5 ttl=64 time=0.377 ms
64 bytes from 172.17.0.2: icmp_seq=6 ttl=64 time=0.084 ms
64 bytes from 172.17.0.2: icmp_seq=7 ttl=64 time=0.077 ms
64 bytes from 172.17.0.2: icmp_seq=8 ttl=64 time=0.093 ms
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker network create skynet
9280cd3f2d346bfcd66322fe61d0a458b4a9c038c577547b95491250b152b558
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker network ls
NETWORK ID      NAME       DRIVER    SCOPE
79dc3ed30547    bridge     bridge    local
27844c2eeba3    host       host      local
defd1b8e8d15    none       null      local
9280cd3f2d34    skynet     bridge    local
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking>
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker network inspect skynet
[
    {
        "Name": "skynet",
        "Id": "9280cd3f2d346bfcd66322fe61d0a458b4a9c038c577547b95491250b152b558",
        "Created": "2021-06-17T23:26:23.96117Z",
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker run --rm -d --name widgetdb -e POSTGRE
S_PASSWORD=password --network skynet -p 5432 postgres
b5ffdf1937f58de9cc324fc162ab1395f81b2b284956f0153ac2a40f0016885a
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker ps
CONTAINER ID    IMAGE      COMMAND              CREATED        STATUS          PORTS                     NAMES
b5ffdf1937f5    postgres   "docker-entrypoint.s…"   12 hours ago   Up 4 seconds    0.0.0.0:65509->5432/tcp   widgetdb
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker run --rm -d --name gadgetdb -e POSTGRE
S_PASSWORD=password --network skynet -p 5432 postgres
a19da5c3dc88700f52244de11608d4a441964edde384392280fa7548f5d1adae
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker ps
CONTAINER ID    IMAGE      COMMAND              CREATED        STATUS          PORTS                     NAMES
a19da5c3dc88    postgres   "docker-entrypoint.s…"   12 hours ago   Up 3 seconds    0.0.0.0:49677->5432/tcp   gadgetdb
b5ffdf1937f5    postgres   "docker-entrypoint.s…"   12 hours ago   Up 23 seconds   0.0.0.0:65509->5432/tcp   widgetdb
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker exec -it widgetdb /bin/bash
root@b5ffdf1937f5:/# psql -U postgres
psql (13.3 (Debian 13.3-1.pgdg100+1))
Type "help" for help.

postgres=# \q
root@b5ffdf1937f5:/# psql -U postgres -h gadgetdb
Password for user postgres:
psql (13.3 (Debian 13.3-1.pgdg100+1))
Type "help" for help.

postgres=# \q
root@b5ffdf1937f5:/# exit
exit
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker stop widgetdb gadgetdb
widgetdb
gadgetdb
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker run --rm -d --name widgetdb -e POSTGRE
S_PASSWORD=password --network skynet -p 5432:5432 postgres
6087fd38a6ddbe34daeaa7de86088924f626bfc5ab6200abd1cff73115431491
```

```
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker exec -it widgetdb /bin/bash
root@6087fd38a6dd:/# psql -U postgres -h localhost
psql (13.3 (Debian 13.3-1.pgdg100+1))
Type "help" for help.

postgres=# \q
root@6087fd38a6dd:/# exit
exit
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker stop widgetdb
widgetdb
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking> docker ps
CONTAINER ID    IMAGE      COMMAND     CREATED     STATUS     PORTS     NAMES
PS C:\Users\Jalen\Documents\[Git]\ME8_Containerization_and_Docker\6-networking>
```